MAGNUM® 450WC

The Magnum 450WC Water-Cooled Gun and Cable Assembly

K684

The Magnum 450WC is a water cooled gun and cable assembly designed for both gas-shielded solid (GMAW) and gas-shielded, flux-cored (FCAW-GS) continuous feed arc welding wires.

To function properly, the 450WC must be connected to a water cooler. Water flows through the gun cables and handle to the end of the gun tube, cooling the gas diffuser and nozzle.

In addition to keeping the contact tip cool, the outgoing end of the gun tube is specially designed for maximum heat transfer between the cooling water and the gas nozzle. The gas nozzle will not overheat, even when operating the gun at 100% duty cycle. This results in cool operation in applications such as spray transfer, pulse welding and when using argon blended gas.

The gun has two ratings when cooled at a minimum water flow rate of .58 gallons (2.2 liters) per minute.

With straight CO_2 gas:
450 amps, 100% duty cycle.

With argon/CO_2 blended gas:
400 amps, 100% duty cycle.

The wire diameter range is .035 - 5/64" (0.9 - 2.0mm):

Solid Wire:
.035 - 1/16" (0.9 - 1.6mm)
Flux-cored Wire:
.045 - 5/64" (1.2 - 2.0mm)

Choose from 10 ft. or 15ft. (3 or 4.5m) cable lengths.

The gun tube angle is 60 degrees.

Cable liners for aluminum wire feeding are available. See Expendable Replacement Parts table on page 3.

The 450WC gun can be connected to a wire feeder with a Lincoln Fast-Mate™ adapter or a European-style gun adapter. The following connector kits allow connection of the 450WC gun to wire feeders without Fast-Mate receptacles:

Connector Kit	Feeder Type
K489-1	Lincoln LN-7 Series, LN-8 or LN-9
K489-2*	Lincoln LN-25 or DH-10
K489-3	Miller wire feeders
K489-4	Tweco adapted wire feeders
K489-5	Hobart Series 2000 wire feeders
K489-6	ESAB wire feeders
K489-7	Lincoln 10-Series feeders, LN-10, DH-10, PF-10, STT-10.

* To install a K489-2 Adapter Kit on a 10-Series wire feeder, a K1500-1 wire feeder connector is also required.

ORDERING INFORMATION

Product No.	Cable Length ft. (mm.)	Wire Size In. (mm.)	Contact Tip	Gas Diffuser	Gas Nozzle	Cable Liner
K684-X	10 (3.5)	.035 (.9) .045 (1.2)	S22334-035 S22334-045	S22030-1	M18210-4	M16083-1
K684-X	15 (4.5)	.035 (.9) .045 (1.2)	S22334-035 S22334-045	S22030-1	M18210-4	M16083-1
K684-X	10 (3.5)	.052 (1.3) 1/16 (1.6)	S22334-052 S22334-116	S22030-1	M18210-4	M16083-2
K684-4	15 (4.5)	.052 (1.3) 1/16 (1.6)	S22334-052 S22334-116	S22030-1	M18210-4	M16083-2
K684-5	10 (3.5)	1/16 (1.6) 5/64 (2.0)	S22334-116 S22334-564	S22030-1	M18210-4	M16083-3
K684-6	15 (4.5)	1/16 (1.6) 5/64 (1.6)	S22334-116 S22334-564	S22030-1	M18210-4	M16083-3

Customer Assistance Policy

The business of The Lincoln Electric Company is manufacturing and selling high quality welding equipment, consumables, and cutting equipment. Our challenge is to meet the needs of our customers and to exceed their expectations. On occasion, purchasers may ask Lincoln Electric for advice or information about their use of our products. We respond to our customers based on the best information in our possession at that time. Lincoln Electric is not in a position to warrant or guarantee such advice, and assumes no liability, with respect to such information or advice. We expressly disclaim any warranty of any kind, including any warranty of fitness for any customer's particular purpose, with respect to such information or advice. As a matter of practical consideration, we also cannot assume any responsibility for updating or correcting any such information or advice once it has been given, nor does the provision of information or advice create, expand or alter any warranty with respect to the sale of our products.

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EXPENDABLE REPLACEMENT PARTS

Description	Part No.	Size Inches	Size mm.
CABLE LINER for 15' (4.5m)	M16083-1	.035-.045	.9-1.2
and less (Steel wire)	M16083-2	.052-1/16	1.3-1.6
	M16083-3	1/16-5/64	1.6-2.0
CABLE LINER for 15' (4.5m)	M18732-2 (black)	.030-.035	.8-.9
and less (Aluminum wire)	M18732-4 (red)	1/16	1.6
	M18732-6 (blue)	.035-3/64	.9-.2
CABLE LINER for 10' (3.0m)	M18732-1 (black)	.030-.035	.8-.9
and less (Aluminum wire)	M18732-3 (red)	1/16	1.6
	M18732--5 (blue)	.035-3/64	.9-1.2
CONTACT TIPS[1]	S22334-035	.035	.9
	S22334-035A	.035A	.9A
	S22334-040	.040	1.0
	S22334-040A	.040A	1.0A
	S22334-045	.045	1.2
	S22334-364A	3/64A	1.2A
	S22334-052	.052	1.3
	S22334-116	1/16	1.6
	S22334-116A	1/16A	1/16A
	S22334-564	5/64	2.0
GAS DIFFUSER	S22030-1		
NOZZLE INSULATOR	S22031-1		
GAS NOZZLE (flush)	M18210-1	.39 ID	10 ID
(flush)	M18210-2	.51 ID	13 ID
(flush)	M18210-3	.59 ID	15 ID
.12" (3mm) recess	M18210-4	.59 ID	15 ID
.12" (3mm) recess	M18210-5	.76 ID	19.2 ID
Spot	M18210-6	.76 ID	19.2 ID
GUN TUBE ASSEMBLY REPLACEABLE PARTS:			
GUN TUBE INSULATION	S22333-7A		
NOZZLE HOLDER[2]	S22333-7B		
FIXING NUT	S22333-7C		
CERAMIC INSULATOR[2]	S22333-7D		
INSULATION CONE	S22333-7F		
JOINT COMPOUND	T12837		

[1] Add suffix “D” for 10-pack, “M” for 20-pack.
[2] Joint compound is required for assembly of these parts.

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